

**Restoration of Sacred *Kaya* forests in Kenyan  
Coast for enhanced provision of ecosystem  
services and products for improved livelihoods**

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# Background information

- Kenya has 8 regions; Central, Coast, Eastern, Nairobi, North Eastern, Nyanza, Rift Valley and Western
- Coast stretches about 150km inland from seafront, covers area of **67,500 km<sup>2</sup>**; approximately **11.5% of the total area of Kenya**; supports **about 8.6%** of the national population
- Coast is endowed with a variety of resources: coral reefs; mangroves; **lowland** and **Kaya forests**, **Afromontane forests** and historical sites, which provide foundation for the region's economy
- Despite being rich in natural resources, the region is characterized by high levels of poverty, **70-80%** of residents live below the poverty line

# Background information cont'd

- Local population **heavily dependent on natural ecosystem for survival**; agriculture (crop and animal production) being the main source of food and income
- Other economic activities are: **fishing, tourism, trade, forestry and mining**
- **Climate change coupled, rapid population growth and overdependence on natural resources are causing extensive degradation of natural resources leading to loss of biodiversity and low food productivity**
- ***Kaya forests* are important multifunctional socio-ecological production landscapes in the coast, which provide direct and indirect benefits for human well-being**

# Characteristics of *Kaya* forests

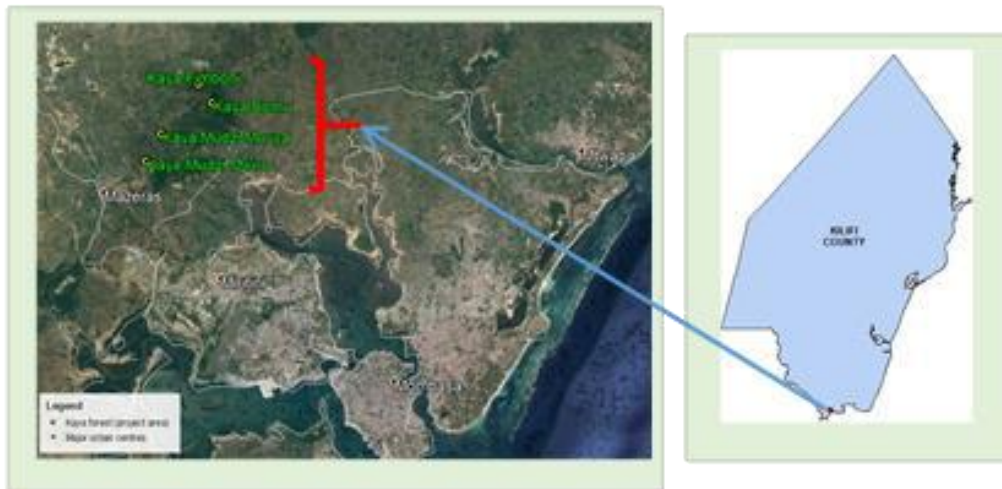
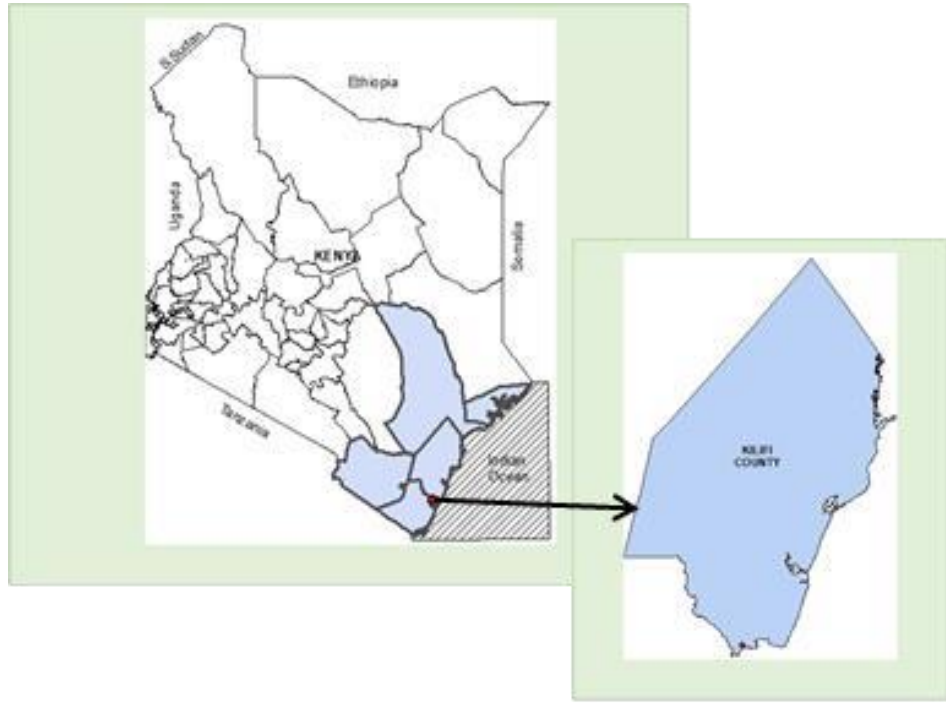
- *Kaya* forests – small isolated forest patches; 2.0 -200.0 ha in size
- *Kaya* forests are preserved as sacred places where prayers, rituals, sacrifices and burials took place
- Protection of *Kayas* deeply entrenched in traditional Mijikenda culture and their integrity and sanctity are safeguarded by *Kaya* elders council who employ a system of taboos and traditional rules to protect the forests
- *Kayas* sustain very high level of biodiversity both in terms of sheer diversity, endemism and rarity in a significant number of biological groups

# Why are *Kaya* forests important?

- *Kaya* forests: source of genetic resources for food, forestry and agriculture
- **Crop wild relatives found in Kayas are used by local communities to improve the quality and yield of their crops by helping to improve resistance against pests and diseases and tolerance to drought; improving agricultural production**
- **Crop wild relatives have high nutritional content that enhances human health**
- **Kayas help local communities in maintaining high level of crop diversity; which is key to adaptation to climate change**

# Importance of *Kaya* forests cont'd.....

- Plants occurring in *Kaya* forests are used to make herbal medicine for preventing, treating and curing many diseases and conditions for human beings, animals and plants
- Wild plants like *Ladonpholia kirkii*, *Tamarindus indica*, *Ziziphus mauritiana* among others found in *Kayas* are important sources of fruits and hence significantly contribute to food security of the local communities
- Promote culture and enhance cohesiveness, traditional festivals and ceremonies are held in *Kayas*; festivals promote social cohesion, facilitate information sharing and encourage values such as reciprocity which play an important role in sustaining local innovations/biodiversity conservation



# Contributions to the Aichi Biodiversity Target







Ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and wellbeing, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable

Indicators you use to assess contributions to the Aichi Biodiversity Target 14

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**Indicator 1: Survival rate (%) of seedlings of native tree species planted in the degraded sites in Kaya forests**

**Indicator 2: Number of biocultural innovations and practices of indigenous communities applied in sustainable conservation and use of biodiversity**

Before (2015)	After (2017)
<p>The survival rate of planted seedlings was monitored making it difficult to track the recovery of degraded sites</p> 	<p>Survival of the restored areas that were formerly degraded regularly monitored using the tracking tool. The survival rate of replanted areas stands at 89%</p> 
<p>Traditional Knowledge based/Biocultural innovations important in conservation of Kaya forests had not been identified and documented</p>  	<p>16 biocultural innovations identified and documented; and disseminated widely for up scaling to enhance conservation of Kaya forests and associated biodiversity</p>  



# Contributions to the Aichi Biodiversity Target

Ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification

Indicators you use to assess contributions to the Aichi Biodiversity Target 15

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**Indicator 1:** Number of studies undertaken to generate information on carbon stocks and biodiversity status of the *Kaya* forests and associated landscape in order to develop restoration technologies for conserving biodiversity

**Indicator 2:** Area (ha) of degradation hotspots mapped and replanted with native tree species raised in the community nurseries

Before (2013)	After (2017)
No information was available on the floral diversity of the Kaya forests as well as on the biocultural innovations used for conserving the forests	Floral diversity of Kaya forests and biocultural innovations for conserving these forests documented
Degradation hotspots had not been mapped to inform restoration of the Kaya forests	5.0 ha of degraded sites have been mapped and identified for replanting to restore them. Already, 3.0 ha of the degraded sites restored with native tree species



# Contributions to the Aichi Biodiversity Target

The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization is in force and operational, consistent with national

Indicators you use to assess contributions to the Aichi Biodiversity Target 16

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**Indicator 1: Number of community members participating in seed exchanges and sharing**

**Indicator 2: Number of community seed banks established to preserve and promote seed sharing and exchange among community members**

Before (2013)	After (2017)
No community seed bank existed to preserve seeds for landraces for sharing, and planting in the next season	Community seed bank has been established to promote seeds sharing and exchange among community members
There was no seed exchanges among farmers to enable them access seeds easily to conserve agro-biodiversity	1,150 community members have registered as members of the established community seed bank to easily access seeds for traditional crop varieties/landraces for planting

# Message to the CBD for post-2020

- Work of IPSI should continue beyond 2020 targets to inform the review of the targets/new strategic plan for biodiversity
- Capacity of IPSI members should be consolidated to scale out/up the conservation and revitalization of SEPLS globally – **as they play central role in conserving biodiversity**

# Suggestions to IPSI for post-2020

- **Consolidate the experiences and lessons from IPSI projects globally – to effectively contribute to the new strategic plan for biodiversity beyond 2020**
- **Baseline study should be conducted prior to the start new projects, to make it easy to measure clear outcomes attributed to the projects**

**THANK YOU!**